



## Complete Summary

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### GUIDELINE TITLE

Clinical policy: critical issues for the initial evaluation and management of patients presenting with a chief complaint of nontraumatic acute abdominal pain.

### BIBLIOGRAPHIC SOURCE(S)

American College of Emergency Physicians (ACEP). Clinical policy: critical issues for the initial evaluation and management of patients presenting with a chief complaint of nontraumatic acute abdominal pain. Ann Emerg Med 2000 Oct; 36(4): 406-15. [137 references] [PubMed](#)

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## SCOPE

### DISEASE/CONDITION(S)

Nontraumatic acute abdominal pain

### GUIDELINE CATEGORY

Diagnosis  
Evaluation  
Management  
Risk Assessment

### CLINICAL SPECIALTY

Emergency Medicine  
Family Practice  
Internal Medicine  
Surgery

## INTENDED USERS

Physicians

## GUIDELINE OBJECTIVE(S)

- To present guidelines for the initial evaluation and management of patients presenting to the emergency department (ED) of a hospital with a chief complaint of nontraumatic acute abdominal pain
- To present data concerning laboratory and imaging modalities used to determine the etiology of abdominal pain

## TARGET POPULATION

Patients presenting to the emergency department (ED) of a hospital with a chief complaint of acute abdominal pain

These guidelines are not intended for use in the following types of patients with acute abdominal pain:

- Children
- Patients with known antecedent trauma
- Patients in the last trimester of pregnancy or the first month postpartum

## INTERVENTIONS AND PRACTICES CONSIDERED

1. Assigning diagnosis of undifferentiated abdominal pain (UDAP) and sending discharged patients home with discharge and follow-up instructions
2. Evaluation of abdominal pain, including location of pain, standardized data collection (complaint-specific history and physical examination), serial evaluations, temperature measurement, abdominal auscultation, peritoneal signs for peritonitis, digital rectal examination (DRE), and pelvic examination in female clients
3. Additional evaluation as indicated (e.g. electrocardiogram [ECG], pregnancy testing, abdominal ultrasound, computed tomography) in order to avoid commonly missed diagnoses
4. Laboratory and imaging modalities for presumptive diagnoses
5. Administration of narcotics to facilitate the diagnostic evaluation

## MAJOR OUTCOMES CONSIDERED

- Sensitivity and specificity of diagnostic tests (imaging modalities and laboratory tests) used in the evaluation of abdominal pain
- Diagnostic accuracy
- Morbidity and mortality

## METHODOLOGY

## METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Secondary Sources)  
Searches of Electronic Databases

#### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A MEDLINE search for articles published between January 1990 and January 1999 was performed for abdominal pain management in the emergency department (ED). Key words consisted of physical examination techniques (e.g., auscultation) and specific abdominal conditions (e.g., pancreatitis). Radiology and laboratory qualifiers were then applied to each of the abdominal diagnoses. The bibliographies of the individual articles were also searched for additional references, some of which were published before 1990.

#### NUMBER OF SOURCE DOCUMENTS

Not stated

#### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

#### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Strength of Evidence

A. Interventional studies including clinical trials, observational studies including prospective cohort studies, aggregate studies including meta-analyses of randomized clinical trials only.

B. Observational studies including retrospective cohort studies, case-controlled studies, aggregate studies including other meta-analyses.

C. Descriptive cross-sectional studies, observational reports including case series, case reports; consensual studies including published panel consensus by acknowledged groups of experts.

Articles with significant flaws or design bias were downgraded in their strength of evidence.

#### METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

#### DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

The subcommittee reviewed articles to determine those that applied to the selected topics in this revision. These were analyzed by at least 2 subcommittee members and scored for strength of evidence.

## METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

## DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

This policy is a product of the American College of Emergency Physicians (ACEP) clinical policy development process, including expert review, and is based on the existing literature; where literature was not available, consensus of emergency physicians was used.

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Strength of Recommendations

Strength of recommendations were made according to the following criteria:

Evidence-based standards. Generally accepted principles for patient management that reflect a high degree of clinical certainty (i.e., based on "strength of evidence A" or overwhelming evidence from "strength of evidence B" studies that directly address all the issues).

Guidelines. Recommendations for patient management that may identify a particular strategy or range of management strategies that reflect moderate clinical certainty (i.e., based on "strength of evidence B" that directly addresses the issue, decision analysis that directly addresses the issue, or strong consensus of "strength of evidence C").

Options. Other strategies for patient management based on preliminary, inconclusive, or conflicting evidence, or, in the absence of any published literature, based on panel consensus.

## COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

## METHOD OF GUIDELINE VALIDATION

External Peer Review  
Internal Peer Review

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Expert review comments were received from emergency physicians, physicians from other specialties, such as surgeons, and specialty societies including members of the American Academy of Family Physicians, American College of Obstetricians and Gynecologists, and Emergency Nurses Association. Their responses were used to further refine and enhance this policy.

The American College of Emergency Physicians (ACEP) Board of Directors approved this guideline on June 7, 2000.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

Definitions for the strength of evidence (A-C) and strength of recommendations (Evidence-based standards, Guidelines, Options) are repeated at the end of the Major Recommendations.

#### Patient Management Recommendations: Diagnosing Undifferentiated Abdominal Pain (UDAP)

Evidence-based standards. None specified.

Guidelines.

1. Patients with abdominal pain of undetermined etiology should have a diagnosis of undifferentiated abdominal pain rather than given a more specific diagnosis unsupported by history, physical, or laboratory findings.
2. Discharged patients with undifferentiated abdominal pain should receive discharge instructions and follow-up.

Options. None specified.

#### Patient Management Recommendations: Evaluating Abdominal Pain

Evidence-based standards. None specified.

Guidelines.

1. Do not restrict the differential diagnosis solely by the location of the pain.
2. Do not use the presence or absence of a fever to distinguish surgical from medical etiologies of abdominal pain.

Options.

1. Use serial evaluations over several hours to improve the diagnostic accuracy in patients with unclear causes of abdominal pain.
2. Collect a complete data set before reaching a differential diagnosis; consider a systemic data collection tool, such as a formatted chart.
3. Perform a stool for occult blood test in patients with abdominal pain.
4. Perform a pelvic examination in female patients with abdominal pain.

#### Patient Management Recommendations: High-Risk Patients

Evidence-based standards. None specified.

Guidelines. None specified.

Options. Identify patients at high risk for atypical presentations to avoid misdiagnosis.

Patient Management Recommendations: Commonly Missed Diagnoses

Evidence-based standards. None specified.

Guidelines. None specified.

Options.

1. Obtain an electrocardiogram (ECG) in elderly patients and those with cardiac risk factors with upper abdominal pain of unclear etiology.
2. Obtain a pregnancy test in all women of childbearing potential who present with abdominal pain.
3. Use of abdominal ultrasound or computed tomography may be of help in evaluating for abdominal aortic aneurysm (AAA) in patients in stable condition older than 50 years with unexplained abdominal pain.
4. Consider the diagnosis of appendicitis in women with diagnoses of pelvic inflammatory disease or urinary tract infections.

Patient Management Recommendations: Narcotic Analgesia in Abdominal Pain

Evidence-based standards. None specified.

Guidelines. None specified.

Options. Provide narcotic analgesia to patients being evaluated for abdominal pain in the emergency department (ED).

Definitions:

Strength of Evidence

A. Interventional studies including clinical trials, observational studies including prospective cohort studies, aggregate studies including meta-analyses of randomized clinical trials only.

B. Observational studies including retrospective cohort studies, case-controlled studies, aggregate studies including other meta-analyses.

C. Descriptive cross-sectional studies, observational reports including case series, case reports; consensual studies including published panel consensus by acknowledged groups of experts.

Articles with significant flaws or design bias were downgraded in their strength of evidence.

Strength of Recommendations

Strength of recommendations were then made according to the following criteria:

**Evidence-based standards.** Generally accepted principles for patient management that reflect a high degree of clinical certainty (i.e., based on "strength of evidence A" or overwhelming evidence from "strength of evidence B" studies that directly address all the issues).

**Guidelines.** Recommendations for patient management that may identify a particular strategy or range of management strategies that reflect moderate clinical certainty (i.e., based on "strength of evidence B" that directly addresses the issue, decision analysis that directly addresses the issue, or strong consensus of "strength of evidence C").

**Options.** Other strategies for patient management based on preliminary, inconclusive, or conflicting evidence, or, in the absence of any published literature, based on panel consensus.

#### CLINICAL ALGORITHM(S)

None provided

### EVIDENCE SUPPORTING THE RECOMMENDATIONS

#### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

### BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

#### POTENTIAL BENEFITS

This guideline may help improve diagnostic accuracy and decrease morbidity and mortality in patients presenting to the emergency department (ED) of a hospital with a chief complaint of nontraumatic acute abdominal pain.

Subgroups Most Likely to Benefit:

The following groups of patients are most likely to benefit from these recommendations:

- Elderly patients and patients with human immunodeficiency virus (HIV) who are likely to have atypical presentations of abdominal pathologic conditions, as well as increased morbidity and mortality
- Patients with life-threatening conditions that are commonly missed, such as ruptured abdominal aortic aneurysm, appendicitis, ectopic pregnancy, and myocardial infarction

#### POTENTIAL HARMS

Not stated

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

- A review of the medical literature on abdominal pain found many studies on specific disease entities but very few regarding the overall approach to patients with abdominal pain. Published research on abdominal pain is predominantly retrospective and diagnosis specific. There are few data regarding the emergency evaluation of an undifferentiated complaint.
- The usefulness of ancillary testing depends on many factors: pretest probability, the specificity and sensitivity of the test, and disease prevalence. Many commonly used laboratory analyses and imaging studies are neither sensitive nor specific for a particular diagnosis. The emergency physician should understand the limits of these ancillary studies and should order only those tests likely to affect diagnosis or management. These are listed in the appendix of the original guideline document.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better

### IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

American College of Emergency Physicians (ACEP). Clinical policy: critical issues for the initial evaluation and management of patients presenting with a chief complaint of nontraumatic acute abdominal pain. Ann Emerg Med 2000 Oct; 36(4): 406-15. [137 references] [PubMed](#)

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2000

GUIDELINE DEVELOPER(S)

American College of Emergency Physicians - Medical Specialty Society

SOURCE(S) OF FUNDING

American College of Emergency Physicians

GUIDELINE COMMITTEE

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ACEP Clinical Policies Committee

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the [American College of Emergency Physicians Web site](#).

Print copies: Available from the American College of Emergency Physicians, ACEP Customer Service Department, P.O. Box 619911, Dallas, TX 75261-9911, or call toll free (800) 798-1822, touch 6.

#### AVAILABILITY OF COMPANION DOCUMENTS

None available

#### PATIENT RESOURCES

None available

#### NGC STATUS

This NGC summary was completed by ECRI on January 29, 2003. The information was verified by the guideline developer on March 13, 2003.

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